



Fire Prevention Division

**Certification Packet**

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## BIBLIOGRAPHY

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Administrative Rule 9.01.04	<a href="#"><u>Page 19</u></a>	(Certification for Life Safety Systems)
Administrative Rule 9.02.04	<a href="#"><u>Page 24</u></a>	(Confidence Test Requirements)
Administrative Rule 9.03.04	<a href="#"><u>Page 29</u></a>	(Automatic Sprinklers/Standpipes)
Administrative Rule 9.06.04	<a href="#"><u>Page 33</u></a>	(Out-of-Service Fire Alarm, Standpipe, Sprinkler)

# GENERAL CERTIFICATION INFORMATION

## FIRE PREVENTION BULLETIN

The purpose of the information bulletin is to clarify the procedures for obtaining a certificate from the Seattle Fire Department to install, inspect, maintain and test fire and life safety systems in the City of Seattle.

The following categories of certifications are presently available from the Seattle Fire Department.

* Type AS-1 * <i>NICET CERTIFICATION REQUIRED</i>	Installation, maintenance and confidence testing of automatic sprinkler systems in any type of building.
*Type AS-2 * <i>NICET CERTIFICATION REQUIRED</i>	Installation, maintenance and confidence testing of automatic sprinkler systems in buildings up to four (4) stories.
Type AS-3	Installation of automatic sprinkler systems.
*Type CT-AS * <i>NICET CERTIFICATION REQUIRED</i>	Confidence testing of automatic sprinkler systems.
Type E-1	Installation, maintenance and confidence testing of foam fire extinguishing systems.
Type E-2	Installation, maintenance and confidence testing of carbon dioxide fire extinguishing systems.
Type E-3	Installation, maintenance and confidence testing of engineered, halon or replacement agent fire extinguishing systems.
Type E-4	Installation, maintenance and confidence testing of engineered dry/wet chemical fire extinguishing systems.
Type EG-1	Installation, maintenance and confidence testing of emergency generators.
Type EG-CT	Confidence testing of emergency generators.
Type FA-1	Confidence testing and maintenance of automatic fire alarm systems in any building.
Type FA-2	Confidence testing and maintenance of automatic fire alarm systems in any type of building except high-rise, hospitals and public assemblies over 300 persons.
Type FA-3	Confidence testing and maintenance of automatic fire alarm systems in buildings up to four (4) stories; except hospitals and public assemblies over 300.
Type CT-FA	Confidence testing of automatic fire alarm systems.
Type FP-1	Installation, maintenance and confidence testing of fire pumps and controllers.
Type FP-CT	Confidence testing of fire pumps and controllers.
Type FEX-1	All activities relating to portable fire extinguishers including those listed in Types FEX-2, FEX-3, and FEX-4.
Type FEX-2	Maintain, charge, recharge, inspect, or install portable fire extinguishers.
Type FEX-3	Hydrostatic testing of fire extinguisher cylinders.
Type FEX-4	Annual external examination of CO <sub>2</sub> or stored pressure fire extinguishers equipped with pressure indicators or gauges.
Type SC-1	Installation, maintenance and confidence testing of smoke control systems.
Type SC-2	Confidence testing and maintenance of shaft pressurization systems.
Type STP-1	Installation, maintenance and confidence testing of Class I, II and III standpipes

**Applications:** Applications are handed out to candidates on the day that they test.

**Information packet:** Contact the Fire Marshal's Office, Certification unit at (206) 386-1444 /386-1351 to request a Certification Information Packet. The certification packet is available online at the <http://www.seattle.gov/fire/FMO/certification/certification.htm> as well as by email, fax, or U.S. mail. Packets may also be picked up at the Fire Marshal's Office located at 220 Third Avenue South on the second floor.

**Scheduling:** To make an appointment, call the Certification unit at (206) 386-1444/386-1351. If you receive the recorded message, please follow the instructions. If you wish to receive a confirmation call, please request it in your message. **You may schedule up to two exams per test date.** Re-tests will not be administered on the same day as the original test; a separate appointment must be made. The test site is located at the Fire Marshal's Office at 220 3<sup>RD</sup> Ave. S. on the second floor.

**Fees:** The cost for **each** exam is \$199.00 (checks payable to the *City of Seattle*). The fee covers the initial test and if needed, one retest. The retest must be taken within 90 (ninety) days of the original test date. If the retest is taken after the 90-day period, a new certification exam fee of \$199.00 will be required.

**The fee is due no later than the time of the exam.** If payment is not made prior to the time scheduled for the exam, **the applicant will not be allowed to take the exam.** The recommended method of payment is to pay the day of the test, by cash, check or money order. Those applicants who choose to prepay by U.S. Mail will receive an official *City of Seattle* receipt via U.S. Mail. Those who pay by U.S. Mail should expect approximately 2 weeks before they receive their official receipt via U.S. Mail. **All applicants must bring with them to the test site, a copy of the *City of Seattle* official receipt as proof of payment.** This guideline **also applies to applicants who retest.** There will be no exceptions to this policy. Checks or money orders shall be made payable to the *City of Seattle* and can be mailed to the address listed above.

**Replacement Card Fee:** A \$ 10.00 fee will be assessed for each lost or stolen certification card that is replaced.

**Test Date/Time:** The Certification test is administered at 2:00 p.m. every Monday and Wednesday and **starting June 1, 2006 - 7:30 a.m. on Tuesdays.** Test takers have two hours to complete the test. Tests are not administered on City Holidays.

**Expiration:** Certificates will expire **three (3) years** from the date of test. It is the responsibility of certificate holders to keep their certificate up to date. It is a criminal law violation to perform any of the work regulated by Seattle Fire Department Administrative Rule 9.01.04 without a valid certificate.

**Identification:** Applicants must present picture identification at the test site prior to being issued an exam. **Applicants who fail to do so will not be permitted to take the scheduled exam.**

**Pre-reading:** Before you acquire study materials and study you should first read [Admin. Rule 9.01.04](http://www.seattle.gov/fire/FMO/firecode/adminRules.htm) of the Seattle Fire Code. Admin. Rule 9.01.04 of the Seattle Fire Code contains in-depth information on the certification program, including a list of persons and agencies exempted from the program. A copy of Admin. Rule 9.01.04 is included in the Certification informational packet. All Seattle Fire Department Administrative Rules can also be viewed online at <http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>

**General Reference Materials:** What follows are descriptions of the reference materials from which the certification test questions are derived. Where these materials can be obtained is indicated below. Specific reference material for each certificate type can be found below in the bibliography section of this packet.

Codes in effect in Seattle include the following:

**2003 Seattle Fire Code.** This is a locally amended version of the 2003 International Fire Code. It is available for viewing online at <http://www2.iccsafe.org/states/Seattle/> (or through links from the Seattle Fire Department web site) and may be purchased at both the Seattle Fire Department and the Seattle Department of Planning and Development, as well as online from iccsafe.org. For local purchase of the 2003 Seattle Fire Code, see <http://www.seattle.gov/fire/FMO/firecode/purchase.htm> or contact the Seattle Fire Department at (206) 386-1450.

**2003 Seattle Building Code.** This is a locally amended version of the 2003 International Building Code. It is available for viewing online at <http://www2.iccsafe.org/states/Seattle/> (or through links from the Seattle Fire Department web site) and may be purchased from the Seattle Department of Planning and Development, as well as online from <http://www.iccsafe.org/>. For more local purchase information see <http://www.seattle.gov/dpd/Codes/> or call the Department of Planning and Development Public Resource Center at (206) 684-8467, 700 Fifth Avenue, Floor 20, Seattle.

**2005 Seattle Electrical Code.** This is a locally amended version of the 2005 National Electrical Code, published by the National Fire Protection Association ([www.npfa.org](http://www.npfa.org) or 1-800-344-3555). To view the 2005 National Electrical Code and related Seattle amendments online, see <http://www.seattle.gov/dpd/publications/bookstore/Pubbooks.htm#Electrical>. For more information on obtaining paper copies of the local amendments, contact DPD at (206) 684-8467. Copies of all of the above codes may also be available from local book retailers.

**Seattle Fire Department Administrative Rulings.** SFD Admin. Rulings are available on the web at <http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>

\*They are also contained in the bibliography section of this packet.

**Seattle Department of Planning & Development – Client Assistance Memos (CAMs).** CAMs can be obtained from the Certification Unit by email, fax, or U.S. mail by calling (206) 386-1351. CAMs are also available on the web at: <http://www.cityofseattle.net/dclu/camlist/camlist.asp> and at the Department of Planning and Development Public Resource Center, (206) 684-8467, 700 Fifth Avenue, Floor 20, Seattle.

**Seattle Department of Planning & Development – Director’s Rules.** Director’s Rules can be obtained from the Certification Unit by email, fax, or U.S. mail by calling (206) 386-1351. Director’s Rules are also available on the web at: [http://www2.ci.seattle.wa.us/dclu/codes/dr/dr\\_index.asp](http://www2.ci.seattle.wa.us/dclu/codes/dr/dr_index.asp) and from the Department of Planning and Development Public Resource Center, (206) 684-8467, 700 Fifth Avenue, Floor 20, Seattle.

**National Fire Protection Association standards.** NFPA Standards can be purchased through their website

[www.npfa.org](http://www.npfa.org), or by calling the NFPA at 1(800) 344-3555. All NFPA codes are also available for viewing online at <http://www.npfa.org/itemDetail.asp?categoryID=279&itemID=18123&URL=Codes%20and%20Standards/Code%20development%20process/Online%20access> scroll down to the “View NFPA’s Document Information Page” – Read and accept the agreement to view all of the NFPA codes. Copies may also be available from local book retailers.

This Specific reference material for each certificate type can be found below in the bibliography section of packet.

**Order of precedence:** In cases where information in the listed reference materials conflict, the following order of precedence shall be used to resolve such conflicts:

1. City of Seattle Ordinances
2. The Seattle Electrical Code
3. The Seattle Building Code
4. The Seattle Fire Code
5. DPD Director’s Rules
6. DPD Client Assistance Memo’s
7. Seattle Fire Department Administrative Rules
8. National Fire Protection Association Standards
9. Other listed reference material

Links to Other Resources:

The following is a list of web sites where additional information pertaining to fire and life safety issues maybe found.

<http://www.firesprinkler.org/>  
<http://www.nfsa.org>  
<http://www.npfa.org/>  
<http://www.nicet.org/>  
<http://www.fema.gov/>  
<http://www.usfa.fema.gov/>  
[www.affa.org](http://www.affa.org)  
<http://www.alarm.org/>  
<http://www.ifci.org/>  
<http://www.ansi.org/>  
<http://www.astm.org/>  
<http://www.ashrae.org/>  
<http://www.iatc.net>

## **AUTOMATIC SPRINKLER SYSTEMS**

The AS category does not include Standpipe systems

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**Beginning in January 2006, Washington State requires that persons in all jurisdictions conducting Confidence Tests hold a NICET II /Certificate of Competency or Temporary Certificate of Competence issued by the State of Washington.**

**Persons performing Confidence Testing services in Seattle who hold a state-issued Certificate of Competency are still required to register through Seattle Fire Department Certification Section**

**AS-1** - Installation, maintenance and confidence testing of automatic sprinkler systems in any type of building.

**\* NICET Certification required**

**AS-2** - Installation, maintenance and confidence testing of automatic sprinkler systems in buildings up to four(4) stories. **\* NICET Certification required**

**AS-3** – Installation of automatic sprinkler systems.

**CT-AS** - Confidence testing of automatic sprinkler systems. **\* NICET Certification required**

### **REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 13, 13R, 25, 307
- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.03.04, 9.06.04  
<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>
  - 1** – Sections: 101.2, 101.3, 102.1, 102.3, 102.8, 103.1, 104.1, 105, 106, 107, 108, 109, 110, 111
  - 2** – Sections: 201, 202
  - 9** – Sections: 901, 902, 904, 905
  - 14** – Sections: 1414
  - 90, 91, 92**
  - 93** (for AS1 and AS3 applicants only)
  - Appendix B and C**
- **Seattle Building Code (2003) – Chapters:**
  - Section: 310.9, 313.8.2, 402.8, 403.2, 404.3, 407.5, 407.6, 410.6, 901, 902, 903, 904
- **Seattle Municipal Code:**
  - Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**
  - Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

## Engineered/Pre-engineered Systems

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### FOAM SYSTEMS

E-1 - Installation, maintenance and confidence testing of foam fire extinguishing systems

#### REFERENCE MATERIAL:

- **National Fire Protection Association Standards:** 11, 11A, 16, 25, 72
- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.02.04  
<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>  
1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111  
2 – Sections: 201, 216
- **Seattle Municipal Code:**  
Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**  
Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

### CARBON DIOXIDE SYSTEMS

E-2 – Installation, maintenance and confidence testing of carbon dioxide fire extinguishing systems

#### REFERENCE MATERIAL:

- **National Fire Protection Association Standards:** 12, 12A, 72
- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.02.04  
<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>
- **Seattle Fire Code (2003) - Chapters:**  
1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111  
2 – Sections: 201, 216  
9, 90, Appendix B
- **Seattle Municipal Code:**  
Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**  
Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

### HALON SYSTEMS AND REPLACEMENT AGENTS

E-3 – Installation, maintenance and confidence testing of engineered halon or replacement agent fire extinguishing systems

#### REFERENCE MATERIAL:

- **National Fire Protection Association Standards:** 12, 12A, 72, 2001
- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.06.04, 9.03.04  
<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>  
1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111  
2 – Sections: 201, 216  
9
- **Seattle Municipal Code:**  
Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**  
Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

### DRY/ WET CHEMICAL SYSTEMS



**E-4** – Installation, maintenance and confidence testing of engineered dry/wet chemical fire extinguishing systems

**REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 17, 17A, 72
- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.02.04  
<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111
  - 2 – Sections: 201, 216
  - 9, 90
- **Seattle Municipal Code:**  
Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**  
Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>
- **Seattle Department of Construction and Land Use:**  
Client Assistance Memo: 418

## EMERGENCY GENERATORS

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**EG-1** – Installation, maintenance and confidence testing of emergency generators

**EG-CT** – Confidence testing of emergency generators

### REFERENCE MATERIAL:

- **National Fire Protection Association Standards:** 110, 70

(1999) *subject to the changes found in the Seattle Amendments to the National Electrical Code (Seattle Ordinance - 119507)*

<http://clerk.ci.seattle.wa.us/~scripts/nph->

[brs.exe?s1=&s2=&s3=&s4=&s5=electrical+code&Sect4=AND&l=20&Sect1=IMAGE&Sect2=THESON&Sect3=PLURON&Sect5=CBOR1&Sect6=HITOFF&d=CBOR&p=1&u=/~public/cbor1.htm&r=1&f=G](http://clerk.ci.seattle.wa.us/~scripts/nph-brs.exe?s1=&s2=&s3=&s4=&s5=electrical+code&Sect4=AND&l=20&Sect1=IMAGE&Sect2=THESON&Sect3=PLURON&Sect5=CBOR1&Sect6=HITOFF&d=CBOR&p=1&u=/~public/cbor1.htm&r=1&f=G)

- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.02.04

<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>

- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>

1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107

2 – Sections: 201, 216

9

- **Seattle Building Code:** 307.2.7, 403.11, 403.12, 402.15

- **Seattle Electrical Code: (2003)**

- **Seattle Municipal Code:**

Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>

- **Seattle Ordinance:**

Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

## FIRE ALARM SYSTEMS

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**FA-1** – Confidence testing and maintenance of automatic fire alarm systems in any type of building

**FA-2** – Confidence testing, and maintenance of automatic fire alarm systems in any type of building except high-rise, hospitals and public assemblies over 300 persons.

**FA-3** - Confidence testing and maintenance of automatic fire alarm systems in buildings up to four (4) stories, except hospitals and public assemblies over 300 persons.

**CT-FA** – Confidence testing of fire alarm systems

### **REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 72

- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.02.04, 9.06.04

<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>

- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>

1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111

2 – Sections: 201, 216

**9, 90, 93, Appendix B**

- **Seattle Building Code:**

9 – Sections: 907, 908, 1105.4.9 (Washington State Amendment)

- **Seattle Municipal Code:**

Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>

- **Seattle Ordinance:**

Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

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## FIRE EXTINGUISHERS

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**FEX-1** - All activities relating to portable fire extinguishers, including those listed in type FEX-2, FEX-3 and FEX-4.

**FEX-2** – Maintain, charge, recharge, inspect or install portable fire extinguishers

**REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 10
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105,
  - 2 – Sections: 201, 216
  - 9, Appendix B
- **Seattle Municipal Code:**
  - Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**
  - Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

**FEX-3** – Hydrostatic testing of fire extinguisher cylinders

**REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 10
- **Seattle Fire Code (2003) - Chapters:**
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.2, 103.4.4, 104.1.2, 105.7.2, 106, 109, 110, 111
  - 2 – Sections: 201
  - 9, Appendix B
- **Seattle Municipal Code:**
  - Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**
  - Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

**FEX-4** – Annual external examination of CO2 or stored pressure fire extinguishers equipped with pressure indicators or gauges

**REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 10
- **Seattle Fire Code (2003) - Chapters:**
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.2, 103.4.4, 104.1.2, 105.7.2, 106, 109, 110, 111
  - 2 – Sections: 201
  - 9, Appendix B
- **Seattle Municipal Code:**
  - Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**
  - Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

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## FIRE PUMPS

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**FP-1** – Installation, maintenance and confidence testing of automatic fire pumps and controllers

**FP-CT** – Confidence testing of fire pumps and controllers

**REFERENCE MATERIAL:**

- **Seattle Fire Department Administrative Ruling:** 9.01.04, 9.02.04  
<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>
- **National Fire Protection Association Standards:** 20, 25
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111
  - 2 – Sections: 201, 216
  - 9, 93, Appendix B
- **Seattle Municipal Code:**  
Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**  
Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

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**SC-1** – Installation, maintenance and confidence testing of smoke control systems

**REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 92A, 90A, 204
- **ASHRAE – Design of Smoke Control Systems**
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111
  - 2 – Sections: 201, 216
  - 9 – Sections: 909, 910
- **93, Appendix B**
- **Seattle Building Code: (2003)**
  - Sections: 402.9, 403.1, 405.5, 405.5.1, 405.5.2, 909, 910
- **Seattle Municipal Code:**
  - Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**
  - Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

**SC-2** – Confidence testing and maintenance of shaft pressurization systems

**REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 92A, 90A
- **Seattle Fire Code (2003) - Chapters:**
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111
  - 2 – Sections: 201, 216
- **9, 93, Appendix B**
- **Seattle Building Code: (2003)**
  - Sections: 402.9, 403.1, 405.5, 405.5.1, 405.5.2, 909, 910
- **Seattle Municipal Code:**
  - Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**
  - Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>

**STANDPIPES**

(This category only includes systems that are designed to discharge water)

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**STP-1** – Installation, maintenance and confidence testing of Class I, II and III standpipes

**REFERENCE MATERIAL:**

- **National Fire Protection Association Standards:** 14, 25
- **Seattle Fire Department Administrative Ruling:** 9.03.04, 49.2 – sections 4.1.4.2.1, 4.1.4.2.2, 4.1.4.2.3  
<http://www.seattle.gov/fire/FMO/firecode/adminRules.htm>
- **Seattle Fire Code (2003) - Chapters:** <http://www2.iccsafe.org/states/Seattle>
  - 1 – Sections: 101.2, 101.4, 103.1.4, 103.3.2.1, 103.3.2.2, 103.4.4, 103.4.8, 105, 106, 107, 109, 110, 111
  - 2 – Sections: 201, 207, 216, 220
  - 9 – Section: 905
  - 11 – Section: 1107.5
  - 14 – Sections: 1412, 1413, 1413.1, 1413.2, 1413.3
  - 22 – Section: 2209.6.1
  - 24 – Section: 2403.5.2
  - 93, Appendix B – C
- **Seattle Building Code:**
  - 4 - Sections: 402.8.1, 410.7
  - 9 – Sections: 905, 905.4
- **Seattle Municipal Code:**
  - Sections: 22.600.00 and 22.602.050 <http://clerk.ci.seattle.wa.us/~public/code1.htm>
- **Seattle Ordinance:**
  - Number: 119124 <http://clerk.ci.seattle.wa.us/~public/CBOR1.htm>



<b>SUBJECT:</b>  <b>CERTIFICATION FOR INSTALLING, MAINTAINING AND TESTING LIFE SAFETY SYSTEMS AND EQUIPMENT</b>	<b>EFFECTIVE DATE:</b>  August 19, 2004
<b>REFERENCES:</b> 2003 Seattle Fire Code Administrative Rule 9.02.04 Confidence Test Requirements for Life Safety Systems NFPA Standards	<b>SUPERSEDES:</b> 97 Seattle Fire Code, Appendix III-B  <b>FCAB REVIEW DATE:</b> August 17, 2004
<b>NOTICE:</b> Notice: Administrative Rules are established per 2003 Seattle Fire Code Section 104.1, and they are subject to the Administrative Sections 104.9 Alternate Materials and Methods, Section 104.8 Modifications, and Section 108.1 Appeals.	<b>APPROVED:</b>  _____ _____ JOHN NELSEN, FIRE MARSHAL

**INTENT**

It is the intent of this rule to insure that life safety systems and equipment are installed, inspected, tested, or maintained by individuals who have demonstrated a basic knowledge to perform such work in accordance with the Seattle Fire Code and nationally recognized standards.

***SCOPE***

This rule shall apply to all individuals engaged in installing, inspecting, testing or maintaining life safety systems and equipment in the City of Seattle.

**EXCEPTIONS:**

- (a) For aircraft, vehicles or vessels, any businesses, firms or persons engaged exclusively in the business of installing, inspecting, testing or maintaining life safety systems or equipment on such aircraft, vehicles or vessels.
- (b) Members of the Fire Department engaged in servicing fire department equipment, work performed on life safety systems in connection with emergency responses, or inspections of life safety systems and equipment at any premises for compliance with the Seattle Fire Code, Fire Department Administrative Rules or nationally-recognized standards.
- (c) Employees of the Federal Government engaged in installing, inspecting, testing or maintaining life safety systems and equipment owned by the Federal Government.



- (d) Employees of the State of Washington engaged in installing, inspecting, testing or maintaining life safety systems and equipment installed for the protection of public rights of way.
- (e) Insurance Rating Associations and building owners engaged in inspecting and testing of life safety equipment and systems when such inspecting and testing is not required by the Seattle Fire Code, Fire Department Administrative Rule, or nationally recognized standards.
- (f) Any individual who services only their own fire extinguisher(s) for their own use, provided such extinguisher(s) are not required by Seattle Fire Code, Fire Department Administrative Rule, or nationally recognized standards.
- (g) Individuals performing inspection, testing or maintaining life safety systems and equipment installed in Group R Division 3 occupancies, unless such systems and equipment are required by the Seattle Fire Code, Fire Department Administrative Rule, or nationally recognized standards.
- (h) Current holders of a Washington State Fire-Sprinkler Certificate of Competency as defined in WAC 212-80. Individuals holding a Washington State Fire-Sprinkler Certificate of Competency are exempted from the Seattle Fire Department Certification Program only in the specific areas for which they are State Certified. Otherwise, all individuals who perform the work of installation, inspection, testing or maintenance of a sprinkler system or any part of such a system must have a Seattle Fire Department Type AS Certificate.
- (i) Building owners, other responsible parties or their authorized agents operating life safety systems for the purpose of conducting emergency evacuation drills required by the Seattle Fire Department.

## DEFINITIONS

For the purposes of this rule the following words and terms have the meanings indicated below:

**Automatic Sprinkler System.** An integrated system of piping connected to a water supply, including associated controlling valves, alarm and supervisory equipment, which will automatically initiate a discharge of water when one of its heat-actuated elements is heated to or above its thermal rating.

**Certificate.** A document issued by the fire code official to a person who has passed the prescribed examination which grants conditional permission to perform the acts described on the document.

**Fire drills.** Fire drills are procedures conducted to test the preparedness of building occupants to evacuate a particular structure. Life safety systems may be actuated when they facilitate or assist building occupants in evacuation. The purpose of a fire drill is not to be used to test a life safety system.

**Life safety systems and equipment.** Automatic sprinkler systems, engineered and pre-engineered fixed extinguishing systems, automatic fire alarm systems including smoke and heat detection systems, standpipe systems including fire pump systems, smoke control systems and alarm and supervisory systems or other appurtenances attached to any of the above listed systems. The term also includes portable fire extinguishers required by the Seattle Fire Code.

**Inspection.** Examination of life safety systems and equipment for proper functioning or for compliance with the Seattle Fire Code, Fire Department Administrative Rules or nationally recognized standards. Inspections may be performed in conjunction with testing and maintenance of life safety systems and equipment.

**Maintenance.** Work, required to keep life safety systems and equipment in an operative condition, including the replacement of the system or component parts when they become undependable or inoperative. The term also means the disassembly of an extinguisher or life safety system and a complete check of all working parts and all parts, which have a bearing on the performance of the system to insure integrity.

**Portable Fire Extinguisher.** A fire protection device containing dry chemicals, fluids or gases for the purpose of extinguishing fires together with the means for application of its contents, which can be moved from place to place by an individual.

**Testing.** With respect to the work performed on life safety systems, the term means the examination and measurement of the functioning of life safety systems or equipment according to requirements of the Seattle Fire Code, Fire Department Administrative Rules or nationally recognized standards. Under this section, a Fire Department certificate may be issued authorizing the holder to perform testing only on the life safety systems or equipment specified on the certificate.

#### *CERTIFICATE REQUIRED*

No individual shall engage in installing, inspection, testing or maintaining life safety systems and equipment unless they have obtained a certificate from the fire code official or are specifically exempted from this rule.

Certificates shall remain valid for a period of time not to exceed three (3) years unless suspended or revoked by the fire code official.

A Seattle Fire Department certificate is issued to an individual who has taken and passed the required examination. A person shall not be required to retake a certification examination and obtain a new certificate upon changing employers. The Seattle Fire Department may change the content of certification examination questions to reflect changes in applicable standards and industry practice.

The fire code official is authorized to recognize certificates or licenses issued by the State Fire Marshal, other fire departments or similar authorities, provided that such certificates or licenses establish qualifications of the holder in a manner similar to this rule and to the satisfaction of the fire code official.

Certificate holders shall be required to carry their Seattle Fire Department certificate at all times when performing work on life safety systems and equipment, and to show this certificate when requested to do so by a Fire Department representative. Certificates are the property of the Seattle Fire Department and shall be surrendered upon demand of a Fire Department representative.

Certificate holders shall also produce a Washington State driver's license or other form of picture identification acceptable to the fire code official when requested to do so by a Fire Department representative.

Individuals who have never previously worked installing, inspecting, testing or maintaining life safety systems and equipment, for a period not to exceed 90 days after the beginning of employment in this capacity, may install, inspect, or test or maintain life safety systems under in the presence and under the direct supervision of another employee who holds a valid certificate for the type of work being performed. Such individuals may not perform work on life safety systems or equipment after the completion of the 90-day period unless s/he holds a valid certificate. The employer may be required to provide documentation of the date of hire of any new employee. The new employee may be required to provide documentation of past work history.

Individuals enrolled in an apprenticeship program approved by the fire code official may perform installing, inspecting, testing or maintaining life safety systems and equipment, provided that such work is conducted in the presence and under the direct supervision of another employee who holds a valid certificate for the type of work being performed. Individuals who are apprentices must provide documentation of their apprentice program enrollment and the apprentice program's start and completion date.

Persons working on life safety systems or equipment while enrolled in an approved apprenticeship program shall be required to produce their apprenticeship card or other written evidence of enrollment in an approved apprenticeship program, as well as a Washington State driver's license or other form of picture identification, when requested to do so by a Fire Department representative.

The fire code official shall maintain a list of all persons currently certified to perform work on life safety systems and equipment.

#### *TYPES OF CERTIFICATES*

A certificate to perform work on life safety systems must be obtained from the Seattle Fire Department before an individual may perform the types of work on life safety systems and equipment specified for each certificate. Types of certificates that are currently required shall be published by the fire code official in this Seattle Fire Department Administrative Rule and are listed below. The fire code official is authorized to add to, delete from or alter the types of certificates required under the Seattle Fire Code.

If an individual holds a valid certificate as of the effective date of this ordinance that authorizes specific work covered by a new type of certificate, that individual shall not be required to obtain the new certificate until his/her existing certificate expires.

* Type AS-1 * <i>NICET CERTIFICATION REQUIRED</i>	Installation, maintenance and confidence testing of automatic sprinkler systems in any type of building.
* Type AS-2 * <i>NICET CERTIFICATION REQUIRED</i>	Installation, maintenance and confidence testing of automatic sprinkler systems in buildings up to four (4) stories.
Type AS-3	Installation of automatic sprinkler systems.
* Type CT-AS * <i>NICET CERTIFICATION REQUIRED</i>	Confidence testing of automatic sprinkler systems.
Type E-1	Installation, maintenance and confidence testing of foam fire extinguishing systems.
Type E-2	Installation, maintenance and confidence testing of carbon dioxide fire extinguishing systems.
Type E-3	Installation, maintenance and confidence testing of engineered, halon or replacement agent fire extinguishing systems.
Type E-4	Installation, maintenance and confidence testing of engineered dry/wet chemical fire extinguishing systems.
Type EG-1	Installation, maintenance and confidence testing of emergency generators.
Type EG-CT	Confidence testing of emergency generators.
Type FA-1	Confidence testing and maintenance of automatic fire alarm systems in any building.
Type FA-2	Confidence testing and maintenance of automatic fire alarm systems in any type of building except high-rise, hospitals and public assemblies over 300 persons.
Type FA-3	Confidence testing and maintenance of automatic fire alarm systems in buildings up to four (4) stories; except hospitals and public assemblies over 300.
Type CT-FA	Confidence testing of automatic fire alarm systems.
Type FP-1	Installation, maintenance and confidence testing of fire pumps and controllers.
Type FP-CT	Confidence testing of fire pumps and controllers.
Type FEX-1	All activities relating to portable fire extinguishers including those listed in Types FEX-2, FEX-3, and FEX-4.
Type FEX-2	Maintain, charge, recharge, inspect, or install portable fire extinguishers.
Type FEX-3	Hydrostatic testing of fire extinguisher cylinders.
Type FEX-4	Annual external examination of CO <sub>2</sub> or stored pressure fire extinguishers equipped with pressure indicators or gauges.
Type SC-1	Installation, maintenance and confidence testing of smoke control systems.
Type SC-2	Confidence testing and maintenance of shaft pressurization systems.
Type STP-1	Installation, maintenance and confidence testing of Class I, II and III standpipes

## **QUALIFICATIONS AND EXAMINATIONS FOR CERTIFICATES**

Applicants may be required to submit evidence that they possess necessary license, tools, or test equipment required for the type of work to be performed.

Applicants for a certificate must provide current personal identification in the form of a Washington State driver's license or another form of picture identification acceptable to the fire code official.

All applicants for a certificate shall pass a written examination given by the fire code official. Such examinations shall be designed to test the applicant's knowledge to hold the type of certificate for which application has been made. Practical tests or demonstrations may be required in addition to the written examination.

A list of suggested information resources to prepare for the examinations for certificates shall be provided by the fire code official.

### ***SERVICE LABEL REQUIREMENTS***

When performing installation, testing, or maintenance, the name of certifying firm, firm address, firm phone number, date of work, signature and certificate number of the technician performing the work shall be placed on the service label. The service label will be of the appropriate color; white, yellow, or red as required by Administrative Rule 9.02.04 Confidence Test Requirements for Life Safety Systems.

No person shall remove a service label from, or place a service label on, a life safety system or item of life safety equipment except when installation, testing or maintenance is performed. A new label shall be attached whenever testing or maintenance is performed.

No person shall deface, modify or alter any service label attached to or required to be attached to any life safety system or item of life safety equipment.

### ***DENIAL, REVOCATION AND SUSPENSION OF CERTIFICATES***

The fire code official may refuse to issue, renew, or may suspend or revoke any certificate if he determines that an applicant for or holder of a certificate has:

1. Obtained or attempted to obtain a certificate by fraud or misrepresentation.
2. Has installed, tested or maintained a life safety system or item of life safety equipment in violation of this Code, Administrative Rule, or standard.
3. The applicant for a certificate does not possess the qualifications to conduct the operation for which application is made as demonstrated by written and/or practical examination.
4. The applicant for a certificate does not possess the proper facilities to conduct operations for which application is made.

Individuals whose certificates have been denied, suspended or revoked shall be so notified in writing and may request a hearing by the fire code official in accordance with Section 108 of the Seattle Fire Code. After such hearing, the fire code official shall consider the facts and circumstances surrounding the case and shall render his/her decision in writing. The decision of the fire code official shall be final with regard to whether or not the certificate shall be denied, suspended or revoked.

**SEATTLE  
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**Administrative Rule  
9.02.04**

<b>SUBJECT:</b>  <b>CONFIDENCE TEST REQUIREMENTS FOR LIFE SAFETY SYSTEMS</b>	<b>EFFECTIVE DATE:</b>  August 19, 2004
<b>REFERENCES:</b> 2003 Seattle Fire Code NFPA Standards	<b>SUPERSEDES:</b> 97 Seattle Fire Code, Appendix III-B Adm. Ruling 10.301.8 Maintenance Requirements for Fire and Life Safety Systems, 1990
	<b>FCAB REVIEW DATE:</b> August 17, 2004
<b>NOTICE:</b> Notice: Administrative Rules are established per 2003 Seattle Fire Code Section 104.1, and they are subject to the Administrative Sections 104.9 Alternate Materials and Methods, Section 104.8 Modifications, and Section 108.1 Appeals.	<b>APPROVED:</b>    _____ JOHN NELSEN, FIRE MARSHAL

**SCOPE**

This rule shall apply to life safety systems and equipment identified in Table 1 of this document, and any other systems as set forth by the code official.

**Exception:** Non-required life safety systems installed in one and two-family dwellings.

**DEFINITIONS**

For the purposes of this rule the following words and terms have the meanings indicated below:

**Certified System.** A life safety system will be considered certified when a certified technician dates, signs, and affixes white or yellow service label in accordance with the provisions of this rule. An exception is fire escapes which may be tested by building owners or their representatives in accordance with Seattle Fire Department Information Bulletin #973 (<http://www.seattle.gov/fire/FMO/firecode/infobulletins/973.pdf>)

**Confidence Test Report.** A complete record of a life safety system test, including problems found and any corrections made.

**Emergency Alarm System.** A system to provide indication and warning of emergency situations involving hazardous materials.

**Certified Technician.** A person engaged in the business of installing, testing and maintaining life safety systems who holds a valid certificate issued by the fire code official or who is specifically exempted.

**Service Label.** A white, yellow, or red tag or label formatted in accordance with Seattle Fire Department rule and used for the purpose of indicating the status of life safety system.

**Test.** With respect to the work performed on life safety systems, the term means the examination and measurement of the functioning of life safety systems or equipment according to requirements of the Seattle Fire Code, Fire Department Administrative Rules, nationally-recognized standards, or manufacturer's instructions.

#### *GUIDELINES*

All life safety systems other than fire escapes shall be tested and certified only by certified personnel. Fire escapes may be tested by building owners or their representatives in accordance with Seattle Fire Department Information Bulletin #973 (<http://www.seattle.gov/fire/FMO/firecode/infobulletins/973.pdf>)

Confidence tests shall be conducted on a regular basis as dictated by the schedule included in this administrative rule.

A Fire Department representative may witness annual and five-year confidence tests.

#### **CONFIDENCE TEST REQUIREMENTS**

In order for the confidence test to be valid, a completed confidence test report must be submitted to the Seattle Fire Department. The individual that performs the confidence test or the agency that he/she represents will be responsible for the delivery of confidence test reports to the Fire Department within the time frames established by the tagging section of this rule.

A separate confidence test report form shall be submitted to the Fire Department for each life safety system. All information on the report must be complete and legible or the report may be rejected by the Fire Department.

All report forms must contain the following:

- Address of the system location
- Name of certified technician conducting the test
- Technician's Seattle Fire Department certification number
- Date of the confidence test
- The location of the specific system must be clearly identified

Confidence test results shall be faxed, mailed or delivered to the Seattle Fire Department according to the time schedule established in this rule. Reports shall be directed to Seattle Fire Department, Attn: Confidence Testing Unit, 220 Third Avenue South, Seattle, Washington 98104 FAX: 206-615-1068.

#### **REQUIREMENTS FOR TAGGING LIFE SAFETY SYSTEMS AND REPORTING TEST RESULTS**

For all tests conducted after Dec. 31, 2004, life safety systems shall be tagged as follows:

**RED TAG** – Systems out of service and/or whose operation is seriously impaired shall be tagged with a red service label and the confidence testing report shall be faxed or delivered to the Fire Department before the end of the day of the test. When a test report indicating an out of service system is delivered or faxed to the Seattle Fire Department on a weekend or holiday, or after regular business hours on a week day, the Certified Technician shall immediately report the out of service system to the Seattle Fire Department 206-233-7219. NOTE: Out of service fire protection systems may require a fire watch per Seattle Fire Department Administrative Rule 9.06.04

**YELLOW TAG**- Systems that are functioning, but have deficiencies, shall be tagged with a yellow service label and the confidence testing report will be faxed, mailed or delivered for receipt by the Fire Department within 15 days of the date of the test. Example: A fire alarm system with a “trouble” indication shall receive a yellow service label.

#### **WHITE TAG – NO DEFICIENCIES**

Systems with no deficiencies shall be tagged with a white service label and the confidence testing report will be faxed, mailed or delivered for receipt by the Fire Department within 30 days of the test.

#### **SEQUENCE TEST REQUIRED**

Buildings with interconnected life safety equipment shall have a sequence test in addition to individual system tests to verify that all interrelated life safety equipment operates properly. When a sequence test is conducted, a separate test report shall be completed for sequence test and a separate sequence test service label shall be affixed to the fire alarm panel.

#### **SUB PANELS**

Some systems have sub panels (such as notification appliance circuits) that must be tested as part of the confidence testing. Locations of these subpanels should be identified at the fire alarm panel and noted on the confidence testing report.

#### **RECORDS OF TEST RESULTS**

Copies of confidence test reports for life safety systems shall be maintained on the premises where the life safety system is located and made available for Fire Department inspection for a minimum of two years from the date of the test. The system owner shall maintain a copy of the most recent fire alarm system test report at the main control panel, if a panel is present. A copy of the most recent confidence test report for the fire sprinklers shall be maintained at the main control valve.

**TABLE 1**  
*CONFIDENCE TEST SCHEDULE*

<b>Type of System</b>	<b>Test Frequency</b>
Pre-Action Sprinkler System	Annually
Tempered Windows / Smoke Removal	Annually
Standpipe	5 Years
Wet Automatic Sprinkler	Annually
Dry Automatic Sprinkler	Annually
Shaft Pressure	Annually
Emergency Generator	Annually
Fire Pump	Annually
Fire Alarm System	Annually / Quarterly*
Stairway Door Locks	Annually
Foam System	Annually
Ranghood	Semi - Annually
Halon / CO <sub>2</sub> / Other Agent	Annually
Haz-Mat Emergency Alarm System	Annually
Fire Escapes	5 Years

\* Fire alarm systems in high rise buildings are required to have one-fourth of the entire system tested quarterly so that the entire system is confidence tested annually.

<b><u>TEST ANNIVERSARY DATE ESTABLISHED</u></b>
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Beginning in 2004, for all new systems requiring Confidence Testing, an anniversary date will be established one-year from the date of the system acceptance test. The anniversary date shall remain fixed and establish the due date each year for subsequent confidence tests results to be provided to the Seattle Fire Department as required by this rule.

For existing fire protection systems, the anniversary date and due date for subsequent confidence tests will be established as the date on which confidence tests are conducted during 2004. For tests conducted at five-year intervals, the anniversary date and due date for subsequent confidence tests will be established as the date of the first test conducted in 2004 or thereafter.

**TABLE 2**

<b><u>LOCATION OF SERVICE LABELS OR TAGS</u></b>
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A service label or tag conforming to this section shall be securely attached to each fire and life safety system or item of fire and life safety equipment at the time of installation, service or maintenance. The label shall be of the self-adhesive type or the wire-hanging type.

The label shall be placed as follows:

Life Safety System Type	Location of Tag or Label
Emergency Generators	On the control panel.
Engineered Suppression Systems	On the agent supply tank or pull device
Fire Alarm Systems	On the Fire Alarm Panel or at power supply, if no panel.
Fire Escapes	On or adjacent to the lowest landing.
Fire Pumps	On the control panel
Pre-Engineered Suppression Systems	On the agent supply tank or pull device
Portable Fire Extinguishers	On the control valve of the extinguisher, or cylinder.
Smoke Control Systems	On the manual control panel, or lowest fan if no panel is installed
Sprinkler Systems	On or adjacent to the sprinkler control valve.
Standpipe Systems	On or adjacent to the lowest outlet.
Haz-Mat Emergency Alarm System	In a readily viewable location.



The following format shall be used for all service labels:

<b>DO NOT REMOVE</b>  <b>By Order of the Fire Chief</b>	<b>Year</b>	<b>Month</b>	<b>Next Due Date</b>
	<b>Firm</b>		
	<b>Address</b>		
	<b>Phone</b>		
	<b>Serviced by:</b>		
	<b>Certificate NO.</b>		
<b>Description of work:</b>			

The following information shall be printed on service labels:

1. The words "**DO NOT REMOVE BY ORDER OF THE FIRE CHIEF.**"
2. Name of the certifying business or firm.
3. Address of the certifying business or firm.
4. Telephone number of the certifying business or firm.
5. Date that work was performed.
6. Signature of person performing work.
7. Description of work performed.
8. Seattle Fire Department Certification Number

**SEATTLE  
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**Administrative Rule 9.03.04**

<b>SUBJECT:</b>  <b>AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS</b>	<b>EFFECTIVE DATE:</b>  August 19, 2004
<b>REFERENCES:</b> 2003 SFC Chapter 9 NFPA 13 (1999) NFPA 13R (1999) NFPA 13D (1999)  NFPA 14 (2000)	<b>SUPERSEDES:</b> Administrative Ruling 10.3, Automatic Sprinklers, 1996 Administrative Ruling 10.5 Standpipes, 1996
	<b>FCAB REVIEW DATE:</b> August 17, 2004
Notice: Administrative Rules are established per 2003 Seattle Fire Code Section 104.1, and they are subject to the Administrative Sections 104.9 Alternate Materials and Methods, Section 104.8 Modifications, and Section 108.1 Appeals.	<b>APPROVED:</b>  _____ John H. Nelsen, Fire Marshal

**SCOPE:** This Administrative Rule provides additional and/or modified requirements for automatic sprinkler and standpipe systems beyond those found in the referenced documents. All of the sprinkler requirements apply to NFPA13 and 13R systems. The only item applicable to NFPA13D systems is item 1.

**SPRINKLER REQUIREMENTS:**

1. A 10 psi reserve “cushion” between the available water supply pressure and the system design demand pressure is required. Note: The reserve “cushion” is not required for the hose allowance that is added to the demand flow at the sprinkler system point of connection to the water supply.
2. Elevator machine rooms and elevator pits shall be protected in accordance with Department of Planning and Development (DPD) Director's Rule 21-97. This only applies to NFPA 13 systems.
3. The NFPA 13 and 13R closet exceptions are not allowed when the closet contains a heat-producing appliance.
4. Covered building recesses that are inset 4 feet or more into a building must be sprinklered.

5. All decks with combustible siding shall be sprinklered when they have an eave, canopy, or deck above that is 4 feet or more in width and depth, are recessed 4 feet or more into the building., or if they are enclosed. A deck is "enclosed," if less than 25% of its perimeter is open to the exterior. Solid railings less than 4 ft. in height are not considered enclosures.
6. Storage closets on decks attached to buildings shall be sprinklered.
7. Heat tracing systems for freeze protection shall be UL listed for use with fire protection systems, and be monitored for the following conditions: power failure, current, ground leakage current, and low temperature. The monitoring system shall transmit a supervisory signal to the fire alarm control panel. If no fire alarm is present in the building, the monitoring system shall activate an audible signal in a normally occupied location.
8. All dry pipe systems shall include a high/low air pressure indicator.
9. All dry pipe systems, regardless of size, shall meet a 60 second water to inspector's test outlet trip test time.
10. Stairways in sprinklered buildings require a sprinkler at each floor landing. Sprinklers under intermediate landings are required when the stair shaft walls are combustible.
11. Supply mains for automatic sprinklers may be located under building slabs for a maximum length of 20 ft. when using a single length of pipe.  
**Exception:**  
Two inch and smaller combined domestic and fire supplies.
12. Fire department connections (FDC) shall be readily visible and accessible on a street front, preferably on the street on which the building is addressed. Provide signage to identify the system(s) served (basement sprinklers, standpipes, etc.) by each FDC. Fire department connections shall be located at least 10 ft. away from building exits. Each connection on the FDC shall be provided with locking fire department caps manufactured by Knox Company.
13. Non-rigid insulation that is not encased in reinforced plastic over sprinklers shall be supported by wire mesh within 2 feet of sprinkler heads.
14. Suspended ceilings that are not continuous between all walls of a room or space (cloud ceilings) are to be treated as obstructions to sprinkler discharge and require sprinklers above and below the obstruction.
15. Sprinklers may be omitted in noncombustible concealed spaces in accordance with NFPA 13 when there are no openings into the concealed spaces. Exception: Openings associated with HVAC systems.
16. Sprinkler systems having a combined domestic/fire supply are acceptable for non-high rise buildings when the concurrent domestic demand is added to the sprinkler system demand at the domestic tee. Use NFPA 13R Table A-2.3.3.1(a) Fixture Load Values with Table A-2-3.3.1(b) Total Estimated Domestic Demand to determine the domestic design demand  
**Exception:** The concurrent domestic demand need not be added when a listed automatic domestic shut-off valve is installed.

17. Provide a contrasting label on the door to the sprinkler control room that reads "SPRINKLER CONTROL ROOM" in minimum 1 inch letters.
18. See Chapter 9 of the Seattle Fire Code for sprinkler system requirements in high rise buildings.

### ***STANDPIPE REQUIREMENTS***

1. The automatic –dry standpipe (N.F.P.A. 14, Section 3-2.1), is not permitted.
2. Standpipes shall be hydrostatically tested at a minimum of 200 psi for 2 hours at the topmost outlet, or 50 psi above the design pressures in the system whichever is greater.
3. The 2-1/2" outlet installed in cabinets shall be turned so that it faces out of the cabinet. Provide a 6 inch clear space around the valve wheel.
4. A fire department connection with a minimum of four 2-1/2 inch ports shall be provided for 6 inch or larger standpipes.
5. Fire Department connections shall be on a street front but do not have to be within 100 feet of a hydrant per N.F.P.A. 14, Section 4-3.5.4.
6. Standpipe systems in non-high rise buildings are not required to be designed so that the system can be supplied by the attached water supply as described in N.F.P.A. 14, Section 5-7.
7. Caps on 2-1/2 inch outlet valves shall have a 1/8 inch hole drilled in them to relieve pressure.
8. See Chapter 9 of the Seattle Fire Code for standpipe system requirements in high rise buildings.

### **INSPECTION REQUIREMENTS**

1. Seattle Fire Department inspection of all overhead sprinkler piping, hangers, sway bracing, etc. prior to cover or concealment is required. Escutcheons or covers for concealed sprinklers must be left off for inspection purposes. Additional inspection after installing the covers is not required.
2. The fire department must inspect all joints, thrust blocks, tie-rods, etc. for new underground pipe prior to cover, and witness the hydrostatic test and flush prior to connection of the sprinkler system to the supply piping. Minimum depth of bury for underground piping shall not be less than 3 feet. The use of existing pipe for new systems shall be subject to inspection to determine the extent of tuberculation within the pipe.
3. The Contractor's Material and Test (CM&T) Certificates for Aboveground Piping and Underground Piping must be provided to the fire department inspector prior to final acceptance of the sprinkler system. An authorized representative of the installing contractor shall sign the CM&T Certificates.
4. Contact the Seattle Public Utilities Water Quality Inspector at (206) 233-2635 at least 48 hours in advance to schedule backflow prevention assembly inspection prior to Fire Department final

inspection and sign-off for backflow preventers outside buildings. Call (206) 233-2621 for backflow preventers inside buildings.

**PLAN SUBMITTAL REQUIREMENTS:**

1. Submit three (3) sets of drawings, one (1) set of catalog cut sheets for all equipment to be installed, and one (1) set hydraulic calculations to the Department of Planning and Development Applicant Services Center. Do not submit drawings directly to the Seattle Fire Department.
2. Submittals shall include all information required by NFPA 13. Plans must include water supply information required by NFPA 13. Plans must include water supply information from a recent (within five years) flow test in close proximity to the project site and in the same pressure zone and on the main to be tapped for sprinkler protection. For existing water supply information, and to schedule a flow test please call Seattle Public Utilities at (206) 684-5800.
3. Submittals are not required for relocation or addition of six (6) devices or less to an existing system.

**SEATTLE  
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## **Administrative Rule 9.06.04**

<b>SUBJECT:</b>  <u>OUT-OF-SERVICE FIRE ALARM, STANDPIPE, FIRE SPRINKLER AND EMERGENCY ALARM SYSTEMS</u>	<b>EFFECTIVE DATE:</b>  August 20, 2004
<b>REFERENCES:</b> 2003 SFC 107.1 2003 SFC 901.6 2003 SFC 901.7 2003 SFC 1404.5 2003 SFC 110.1 NFPA 72, 1999 Edition Administrative Rule 26.01.04 Administrative Rule 9.07.04	<b>SUPERSEDES:</b>  Administrative Rule 10.6 Out-of Service Fire Alarm, Standpipe, Fire Sprinkler and Emergency Alarm Systems, 2003
	<b>FCAB REVIEW DATE:</b> August 17, 2004
<b>NOTICE:</b> Notice: Administrative Rules are established per 2003 Seattle Fire Code Section 104.1, and they are subject to the Administrative Sections 104.9 Alternate Materials and Methods, Section 104.8 Modifications, and Section 108.1 Appeals.	<b>APPROVED:</b>  _____ JOHN H. NELSEN, FIRE MARSHAL

### **SCOPE**

This Administrative Rule specifies requirements for fire department notification and fire watch when building fire alarm systems, standpipes, fire sprinkler systems, and/or hazardous material emergency alarms are out-of-service for reasons other than scheduled maintenance and testing. This rule also specifies requirements for fire department notification and fire watch when scheduled maintenance or testing places any of the fire protection systems listed above out-of-service for more than 24 hours.

### **GENERAL**

In the interest of life safety, immediate notification to the fire department is required for out-of-service fire alarms, standpipes, fire sprinkler systems, and hazardous materials emergency alarms.

**Exception:** Systems listed above out-of-service for less than 24 hours for scheduled maintenance or testing.

For specified occupancy groups, a fire watch is also required when the affected building is occupied.

### **DEFINITIONS**

For the purpose of this rule, Fire Watch and Emergency Alarm are defined as follows:

**FIRE WATCH** is a temporary measure for the purpose of detecting early signs of unwanted fire or hazardous material emergency, raising an alarm and notifying the fire department.

**EMERGENCY ALARM** is an alarm required by the building or fire code to alert occupants of an emergency situation involving hazardous materials.

## REQUIREMENTS

### Responsibilities of Building Owner or Occupant

For all occupancy groups, the building owner, owner's designee, or occupant shall:

1. Notify the Fire Department immediately at the **designated telephone 24-hour reporting line** of the following occurrences resulting from other than scheduled maintenance or testing:
  - Out-of-service fire alarm. SFC 901.6
  - Out-of-service standpipe. SFC 901.6
  - Out-of-service fire sprinkler system. SFC 901.6
  - Building fire protection system in which a supervisory or trouble signal has been transmitted for a period exceeding eight hours. NFPA 72, 1999 Edition
  - Out-of-service emergency alarm. SFC 901.6

**Note:** For scheduled testing and maintenance placing any of the above systems out-of-service exceeding 24 continuous hours, notification to the Fire Department is immediately required to the designated telephone 24-hour reporting line.
2. According to building occupancy type, take measures to ensure a fire watch is being conducted in accordance with this rule.
3. Provide notification to building occupants of any out-of-service fire alarm, fire sprinkler or emergency alarm system, and notification when restored to service.
4. Notify the Fire Department at the designated 24-hour reporting number when the out-of-service system is restored in full.

**The telephone number for the designated 24-hour Seattle Fire Department reporting line is 206-233-7219.**

Information to be provided to the Fire Department on the reporting line includes the following:

1. Name and phone number of person reporting the information.
2. The nature of the problem or out-of-service system being reported and the estimated time before it will be back in full service.
3. The name and address of the building affected.
4. The name of the building owner, or occupant and their phone number, if known.

### FIRE WATCH REQUIREMENTS BY OCCUPANCY TYPE AND OCCUPANT LOAD

Group/Division	Description
<b>A</b>	Assemblies where the posted occupant load is 50 or greater.
<b>R-1, R-2, and R-4</b>	Hotels, apartments and congregate residences.
<b>I</b>	Nursing homes, hospitals, health care facilities providing care which render patients incapable of self-preservation without assistance, jails.
<b>E</b>	Schools through the 12 <sup>th</sup> grade, day care centers, preschools, and day treatment centers.

For out-of-service fire alarm, standpipe, fire sprinkler system or emergency alarm in the above Occupancy Groups **when occupied**, Fire Watch shall be required as follows:

1. A designated fire watch shall continuously patrol all areas of the building where the fire protection system is out-of-service at a frequency not to exceed 15 minutes.
 

**Point of Information:** For residential occupancies, fire watch patrol is limited to the building common areas and building facilities such as laundry, maintenance, and storage areas. Fire watch patrol is not expected to enter private apartment or hotel units.

2. Persons performing fire watch shall be provided with an immediately accessible means of providing notification to the Fire Department (e.g. cellular telephone, land-line telephone, two-way radio to continuously staffed position).
3. A fire watch log shall be maintained at the occupancy and must be available for viewing by the Seattle Fire Department at all times during the fire watch. The log shall contain the following:
  - Address of the facility under fire watch
  - Description of fire watch duties (e.g. patrol route, frequency of patrol, location of telephone or cellular phone to notify Fire Department)
  - Running log of person conducting patrol, including name, starting and ending time of patrol shift, and signature
  - Record of any communication to the Fire Department and/or fire protection system monitoring company. See page 4 for sample log.
4. In a mixed-use occupancy, if any portion of the affected building contains an occupancy group listed above which is occupied, fire watch requirements shall apply.  
**Example:** A four story residential occupancy is located above a retail store (M occupancy). In the process of conducting tenant improvement to the M occupancy, the fire alarm in the retail store is placed out-of-service. If a fire occurred in the M occupancy, residents in the above R occupancy would not receive notification of the fire. Therefore, a fire watch is required. If you have questions regarding fire watch in a mixed-use occupancy, contact the Seattle Fire Department Confidence Testing Unit at 206-386-1351.

**Note: Persons performing as a designated fire watch in occupied Group R-1, R-2, R-4, A, I and E Occupancies may not perform other duties while serving as a fire watch.**

**FIRE WATCH REQUIREMENTS IN SPECIFIED B, M, H, F AND S OCCUPANCY GROUPS**

<b>Group/Division</b>	<b>Description</b>
<b>B</b>	<b>Offices. Eating and drinking establishments with occupant load of &lt;50.</b>
<b>M</b>	<b>Stores accessible to the public</b>
<b>H</b>	<b>Occupancies containing hazardous materials</b>
<b>F-1</b>	<b>Moderate Hazard factory and industrial occupancies.</b>
<b>S</b>	<b>Buildings occupied for storage uses.</b>

For out-of-service fire alarm, standpipe, fire sprinkler or emergency alarm systems in occupied Group B, M, H, F-1 and S Occupancy Groups, **when occupied**, fire watch requirements shall be as follows:

1. During the hours the building is occupied, building occupants performing their regular duties, including construction workers, may act as a fire watch in lieu of a designated fire watch.
2. During the process of remodel or phased -in occupancy, when fire alarm, standpipes, fire sprinkler systems or emergency alarms are out-of-service, a dedicated fire watch must be specified to continually check floors on which there are no occupants. Example: During remodel, if construction workers leave a floor vacant during lunch, a fire watch must be established to patrol the unoccupied floor. (During the period the construction workers are in the construction area, a designated fire watch is not required.)

**Point of Information** Fire watch shall be provided in accordance with Seattle Fire Code 2604.2 for hot-work activities and shall continue for a minimum of 30 minutes after the conclusion of the work. The fire code official is authorized to extend the fire watch based on the hazards or work being performed.

3. Persons serving as a dedicated fire watch shall be provided with an immediately accessible means of providing notification to the Fire Department (e.g. cellular telephone, land-line telephone, two-way radio to continuously staffed position).



4. When a dedicated fire watch is required, a fire watch log shall be maintained at the occupancy and must be available for viewing by the Seattle Fire Department at all times during the fire watch. The log shall contain the following:
- Address of the facility under fire watch.
  - Description of fire watch duties (e.g. patrol route, frequency of patrol, location of telephone or cellular phone to notify Fire Department)
  - Running log of person conducting patrol, including name, starting and ending time of patrol shift, and signature
  - Record of any communication to the Fire Department and/or fire protection system monitoring company.

#### **FIRE LOG – EXAMPLE**

Crestwell Arms Apartment Building  
12345 Main Street, Seattle WA

Fire Alarm – Out of Service – Fire Department notified 4-23-02 via direct reporting line.

**Fire Watch Patrol Route:** Begin in basement, laundry, storage and recreation area. Move to Lobby and through hallways, floors one through four. Repeat at intervals not to exceed 15 minutes. Use cell phone provided for Fire Department notification.

Tuesday, April 23, 2002

<b>Date</b>	<b>Name</b>	<b>Firewatch Shift Start</b>	<b>Firewatch Shift End</b>	<b>Comments</b>	<b>Signature</b>
4-23-02	Jane Doe	11:42 pm	2:00 am		
4-24-02	Jack Smith	2:00 am	6:00 am		
4-24-02	Ted Hall	6:00 am	10:00 am		
4-24-02	Jack Smith	10:00 am	10:30 am	Repair Completed at 10:30 am by ABC Alarm Company. Fire Department notified.	

#### **FOR ALL OCCUPANCY CLASSIFICATIONS – REQUIREMENTS ESSENTIAL FOR PUBLIC SAFETY**

This administrative rule does not preclude the requirements of Seattle Fire Code, Section 102.8 which provides that requirements essential for public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, may be determined by the fire code official. Additional safeguards, including firewatch requirements, may be enacted by the fire code official under this provision.